

GRAIN TRANSPORTATION REPORT

Transportation & Marketing, Agricultural Marketing Service United States Department of Agriculture

SEPTEMBER 18, 2003

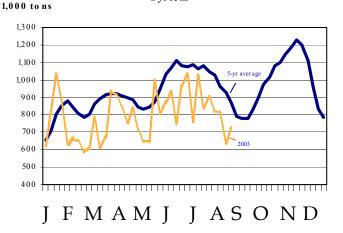
| TM GRAIN TRANSPORT COST | | | | <u>o</u> | <u>cean</u> |
|----------------------------|--------------|-------------|--------------|----------|-------------|
| <u>Indicators</u> | Truck | <u>Rail</u> | <u>Barge</u> | Gulf | PNW |
| Indicator Value* for 09/18 | 99 | 140 | 138 | 154 | 143 |
| Compared to Last Week | • | • | | • | 1 |

^{*}Indicator: Base Year 2000=100; Weekly Updates include Truck=Diesel; Rail=Nearby Secondary Rail Market; Barge=Spot Illinois River Basis; Ocean Vessel based on Routes to Japan

Mississippi River Barge Grain Volumes Down for Year. During 2003, weekly barge grain movements on the Mississippi River System (includes downbound grain on Mississippi, Ohio, and Arkansas Rivers) were below the 5-year average (see chart). As of the first week of September, total year-to-date grain volumes were 19 percent below this time last year. Second quarter 2003 weekly barge grain

volumes decreased 12 percent as compared with the 5-year average and were 19 percent below last year's. As of the first week of September 2003, third quarter weekly volumes were off 15 percent as compared with the 5-year average. On the positive side, wheat shipments on the river are up 8 percent for the year.

Weekly Grain Shipments on Mississippi River System



Low water conditions throughout the year have disrupted barge movements with unexpected delays and stoppages of traffic. The river level in the St. Louis, MO, area has been especially impacted by sparse Midwest rainfall during August and by reduced flows from the Missouri River. Mid-September rains fell on the midsection of the country, resulting in daily increases in water levels at St. Louis. Adequate river levels will certainly be favorable for the barge industry for the upcoming peak months of October and November.

What if a Major Hurricane Were To Hit New Orleans? This week, Hurricane Isabel threatened half of the Atlantic Coast, which handles about 1 percent of the U.S. grain trade. The possibility of a hurricane event in the New Orleans, LA, area would have a much greater effect on the grain trade. Almost all of the grain barged from the Midwest is delivered to the New Orleans area where 60 percent of all U.S. grain exports are shipped to foreign countries. It would be difficult for New Orleans, with much of its land below sea level, to deal with flooding from a severe hurricane. Most of New Orleans' flood

protection relies upon a system of levees to protect the city from floods coming down the Mississippi River. However, a major hurricane hitting the city could bypass the protection system and cause a major disruption of grain barge deliveries. The design of the original levees, which dates to the 1960s, was based on rudimentary storm modeling that may have underestimated the threat of a potential hurricane. The levees were designed to withstand a fast-moving category 3 hurricane. If a lingering category 3 storm—or a stronger category 4 or 5 storm—were to hit the city, much of New Orleans could be under more than 20 feet of water. (American Society of Civil Engineering Magazine, June 2003) <u>Nick.Marathon@usda.gov.</u>

Report is prepared by Deen Olowolayemo, Johnny Hill, Karl Hacker and Delmy Salin, Agricultural Economists, Transportation & Marketing, Agricultural Marketing Service, USDA (202) 690-1304. Support provided by Upper Great Plains Transportation Institute, North Dakota State University. This report can be found on the Internet at www.ams.usda.gov/tmd/grain.htm. E-mail comments and questions to Surajudeen.Olowolayemo@usda.gov.

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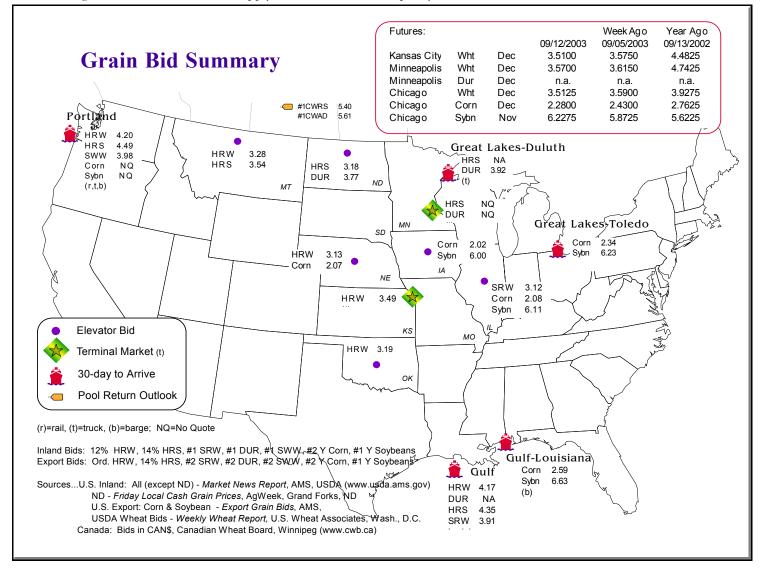
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The Grain Transportation Report is a weekly news source for grain logistics. Detailed data and trend information on five major modes: barge, truck, rail, container, and vessel, provide timely insight into grain transport. The report is offered to policymakers and industry as a tool in day-to-day decision making and longer-term strategic planning for an effective and efficient U.S. grain logistics system.

Market Update: U.S. Origins to Export Position Price Spreads (Per Bushel)

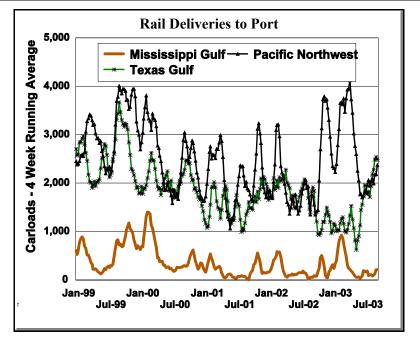
| Commodity | Origin Destination | This week | Last week |
|-----------|-----------------------|-----------|-----------|
| Corn | IL Gulf | -0.51 | -0.45 |
| Corn | NE Gulf | -0.52 | -0.50 |
| Soybean | IA Gulf | -0.63 | -0.51 |
| HRW | KS Gulf | -0.68 | -0.71 |
| HRS | ND Portland | -1.31 | -1.25 |

The **Grain Bid Summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.



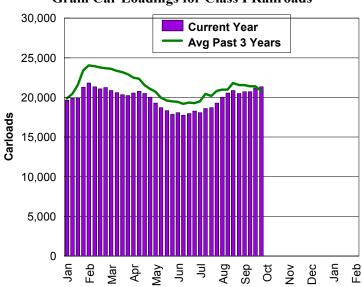
RAIL TRANSPORTATION

| | s to Port (Carloads) Mississippi Gulf* | Texas Gulf | Pacific Northwest | Atlantic & East Gulf | Total |
|--------------------|---|---------------------|-------------------|----------------------|---------|
| Week Ending: | | | | | |
| 09/03/03 | 209 | 2,731 | 2,307 | 189 | 5,436 |
| 09/10/03 | 480 | 2,487 | 2,495 | 100 | 5,562 |
| YTD 2003 | 10,364 | 53,870 | 96,867 | 11,415 | 172,516 |
| YTD 2002 | 7,323 | 67,473 | 69,477 | 15,317 | 159,590 |
| % YTD 2002 | 142% | 80% | 139% | 75% | 108% |
| Total 2002 | 11,127 | 85,822 | 113,857 | 21,562 | 232,368 |
| Total 2001 | 10,022 | 81,804 | 111,376 | 26,604 | 229,806 |
| Source: Transporta | ation & Marketing/AMS/US | SDA; (*) Incomplete | Data | | |



Grain Car Loadings for Class I Railroads

Railroads originate approximately 40% of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.



Class I Rail Carrier Grain Car Bulletin (Grain Carloads Originated and Grain Service Index)

| | E | ast | | West | | U.S. Total | Canada | |
|---------------------|---------|---------|---------|--------|---------|------------|---------|---------|
| | CSXT | NS | BNSF | KCS | UP | U.S. 10tai | CN | CP |
| 09/06/03 | 1,758 | 2,592 | 9,146 | 624 | 6,424 | 20,544 | 3,587 | 3,857 |
| This Week Last Year | 1,686 | 2,601 | 6,137 | 544 | 6,341 | 17,309 | 3,134 | 3,057 |
| 2003 YTD | 96,980 | 115,129 | 264,445 | 14,482 | 233,110 | 724,146 | 124,447 | 129,109 |
| 2002 YTD | 97,306 | 111,653 | 264,645 | 19,320 | 238,399 | 731,323 | 140,561 | 130,799 |
| % of Last Year | 100% | 103% | 100% | 75% | 98% | 99% | 89% | 99% |
| 2002 Total | 142,760 | 164,745 | 400,179 | 27,161 | 344,296 | 1,079,141 | 191,835 | 195,765 |

<u>U.S. Rail Covered Hopper Cars Online Index</u>*

Aug-03 94.1 99.8 94.9 97.9 94.4 95.4

Source: Association of American Railroads; *Base Year =2001, Index based on Number of Covered Hopper Cars Online (available for Service).



Tariff Rail Rates for Unit Train Shipments

September 2003

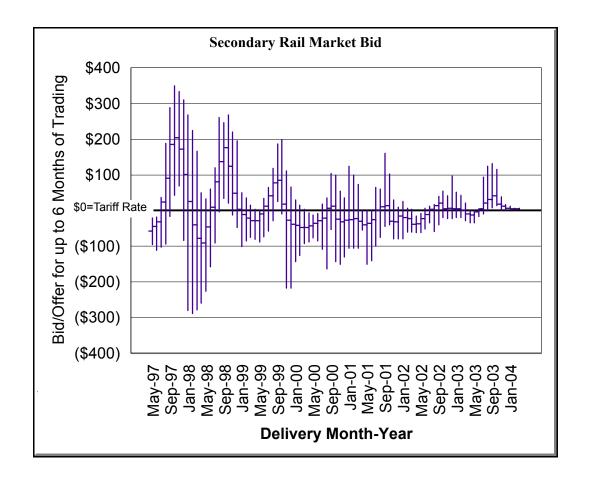
Source: www.bnsf.com., approximate load per car = 100 tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu*

| Date | Tariff | • | 0 | , | Rate | Rate Per | Rate/Per |
|-----------|----------|-----------|--------------------|-----------------|---------|----------|----------|
| Effective | Item | Commodity | Origin | Destination | Per Car | MT | Bushel* |
| 09/02/03 | 113710 | Wheat | Kansas City, MO | Galveston, TX | \$1,820 | \$20.06 | \$0.55 |
| 09/02/03 | 43521 | Wheat | Minneapolis, MN | Portland, OR | \$4,148 | \$45.72 | \$1.24 |
| 09/02/03 | 46540 | Wheat | St. Louis, MO | Houston, TX | \$1,945 | \$21.44 | \$0.58 |
| 09/02/03 | 113710 | Wheat | Kansas City, MO | Laredo, TX | \$2,280 | \$25.13 | \$0.68 |
| 09/02/03 | 15507 | Wheat | Chicago, IL | Albany, NY | \$1,834 | \$20.22 | \$0.55 |
| 09/02/03 | 31005 | Corn | Minneapolis, MN | Portland, OR | \$3,130 | \$34.50 | \$0.88 |
| 09/02/03 | 1132.002 | Corn | Chicago, IL | Baton Rouge, LA | \$2,736 | \$30.16 | \$0.77 |
| 09/02/03 | 1132.03 | Corn | Council Bluffs, IA | Baton Rouge, LA | \$2,170 | \$23.92 | \$0.61 |
| 09/02/03 | 113210 | Corn | Evansville, IN | Raleigh, NC | \$1,686 | \$18.58 | \$0.47 |
| 09/02/03 | 1132 | Corn | Des Moines, IA | Laredo, TX | \$2,864 | \$31.57 | \$0.80 |
| 09/02/03 | 61110 | Soybean | Minneapolis, MN | Portland, OR | \$3,110 | \$34.28 | \$0.93 |
| 09/02/03 | 1144 | Soybeans | Chicago, IL | Baton Rouge, LA | \$2,736 | \$30.16 | \$0.82 |
| 09/02/03 | 1144 | Soybeans | Council Bluffs, IA | Baton Rouge, LA | \$2,799 | \$30.85 | \$0.84 |
| 09/02/03 | 1144 | Soybeans | Des Moines, IA | Laredo, TX | \$2,864 | \$31.57 | \$0.86 |
| 09/02/03 | 11441 | Soybeans | Evansville, IN | Raleigh, NC | \$1,686 | \$18.58 | \$0.51 |

| Secondary Rail Car Market Average Premium/Discount to Tariff, \$/Car - Last Week | | | | | | |
|--|--------|--------|--------|--------|--|--|
| Delivery Period | | | | | | |
| | Oct-03 | Nov-03 | Dec-03 | Jan-04 | | |
| BNSF-GF | \$46 | \$22 | \$14 | \$12 | | |
| UP-Pool | \$42 | \$13 | \$11 | \$10 | | |
| | | | | | | |

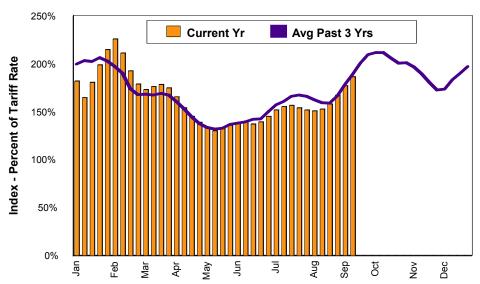
Rail service may be ordered directly from the railroad via **Auction** for guaranteed service or tariff for non-guaranteed service, or through the secondary market. The **Secondary Rail Market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The auction and secondary rail values are indicators of rail service quality and demand/supply.

| Railroad Car 'Auction' Results Average Premium/Discount to Tariff, \$/Car - Last Auction | | | | | |
|---|--------|--------|--------|--|--|
| Delivery for: | Oct-03 | Nov-03 | Dec-03 | | |
| COT/N. Grain | \$1 | no bid | \$0 | | |
| COT/S. Grain | no bid | \$0 | no bid | | |
| GCAS/Region 1 | no bid | \$1 | \$1 | | |
| GCAS/Region 2 | no bid | no bid | no bid | | |
| Source: Transportation & Marketing/AMS/USDA. COT=Certificate of Transportation; GCAS=Grain Car Allocation System | | | | | |



BARGE TRANSPORTATION

Illinois River Barge Rate Index - Rate Quotes



The Illinois River Barge Rate Index averaged 183% of the Benchmark Tariff Rate between 1999 and 2001, based on weekly market quotes. The Index, along with Rate Quotes and Futures Market bids are indicators of grain transport supply and demand.

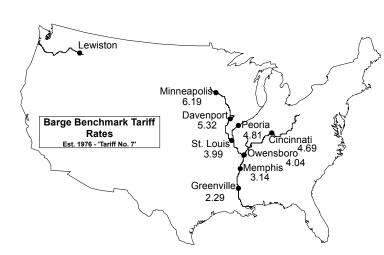
Calculating **Barge Rate** Per Ton: Index × 1976 Tariff Benchmark Rate per Ton

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map below. BARGE RATE QUOTES: Southbound Barge Freight Index=Percent of Tariff, Based on 1976 Tariff Benchmark Rate

| | 9/10/03 | 9/3/03 | Oct '03 | Dec '03 | | | |
|--|---------|--------|---------|---------|--|--|--|
| Twin Cities | 209 | 215 | 270 | nq | | | |
| Mid-Mississippi | 204 | 207 | 255 | nq | | | |
| Illinois River | 198 | 190 | 250 | 183 | | | |
| St. Louis | 206 | 199 | 224 | 143 | | | |
| Lower Ohio | 192 | 187 | 251 | 153 | | | |
| Cairo-Memphis | 188 | 181 | 212 | 139 | | | |
| Source: Transportation & Marketing /AMS/USDA | | | | | | | |

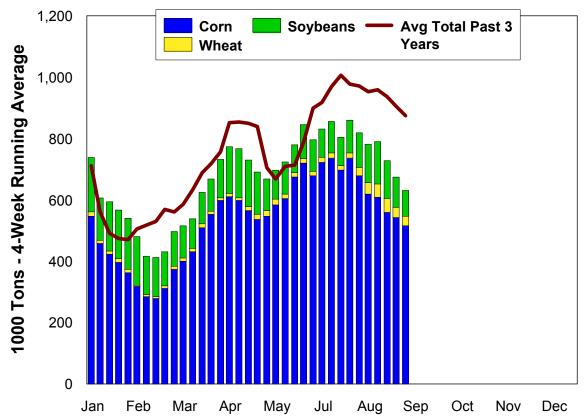
BARGE FUTURES MARKET Southbound Barge Freight Nominal/Cash Basis Values Index=Percent of Tariff, Based on 1976 Tariff Benchmark Rate

| Week | | Contract | Rate | |
|---------|----------------|----------|---------|------|
| ended | River/Region | Period | Futures | Cash |
| 9/16/03 | St. Louis | Oct. | n/a | 250 |
| | | Dec. | n/a | 140 |
| | | Jan. | n/a | 140 |
| | | Feb. | n/a | 140 |
| | | Mar. | n/a | 140 |
| | Illinois River | Oct. | n/a | 265 |
| | | Nov. | n/a | 180 |
| | | Jan. | n/a | 205 |
| | | Feb. | n/a | 185 |
| | | Mar. | n/a | 170 |



Source: St. Louis Merchants Exchange

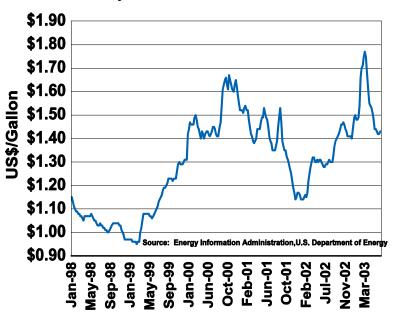
Barge Movements on the Mississippi River (Lock 27)



| Barge Grain Movements (1, for week ending 9/6/03 | ,000 Tons) | | | |
|--|-------------|-------|--------|--------------|
| | <u>Corn</u> | Wht | Sybn | Total |
| Mississippi River | | | | |
| Rock Island, IL (L15) | 126 | 5 | 14 | 149 |
| Winfield, MO (L25) | 181 | 6 | 18 | 211 |
| Alton, IL (L26) | 284 | 11 | 28 | 330 |
| Granite City, IL (L27) | 312 | 116 | 30 | 469 |
| Illinois River (L8) | 79 | 6 | 9 | 94 |
| Ohio River (L52) | 8 | 45 | 8 | 66 |
| Arkansas River (L1) | 0 | 28 | 0 | 28 |
| 2003 YTD | 20,225 | 1,970 | 5,495 | 28,262 |
| 2002 YTD | 24,879 | 1,826 | 7,020 | 34,850 |
| % of 2002 YTD | 81% | 108% | 78% | 81% |
| Total 2001 | 31,878 | 2,679 | 10,616 | 47,091 |

TRUCK TRANSPORTATION

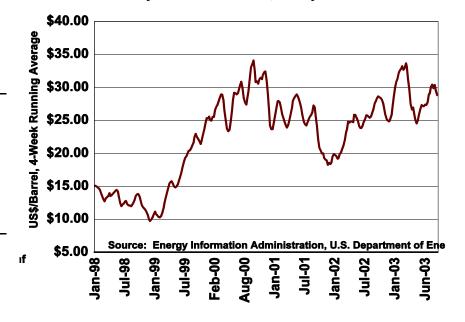
Weekly U.S. Retail Road Diesel Price



The weekly **Diesel Price** provides a proxy for trends in U.S truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37% of the estimated variable cost. **Crude Oil Price** is an indicator in future diesel price trends.

Weekly Brent Crude Price, Friday Close

Light Sweet Crude is exchanged on the New York Mercantile Exchange. North Sea oil has a "benchmark" role in crude oil pricing. Brent crude, a blend of North Sea oils, is traded on the International Petroleum Exchange in London.



| Crude Oil Prices (09/09/03) US\$ per Barrel | This Week | <u>Last Week</u> | |
|--|-----------|------------------|----------|
| Light Sweet Crude (NYMEX) | 27.49 | 28.98 | \ |
| Brent Crude | 24.43 | 2752 | ♦ |

Source: www.eia.doe.gov; *U.S. Refiner Crude Acquisition Cost, Composite Domestic & Import

GRAIN EXPORTS

| U.S. Export Balances | (1,000 M | 1etric T | ons) | | | | | | |
|--------------------------|--------------|----------|----------|-----------|------------|--------|--------|----------|---------|
| | | | | Wheat | | | Corn* | Soybean* | Total |
| | HRW | SRW | HRS | SW W | DUR | A11 | | | |
| 09/04/2003 | 2,262 | 568 | 1,355 | 747 | 178 | 5,108 | 7,626 | 8,064 | 20,798 |
| This Week Year Ago | 1,250 | 328 | 1,187 | 560 | 90 | 3,415 | 6,206 | 5,802 | 15,423 |
| Commulative Exports-0 | Crop Year | | | | | | | | |
| 03/04 YTD | 3,161 | 1,028 | 1,606 | 945 | 250 | 6,990 | 461 | 40 | 7,491 |
| 02/03 YTD | 2,544 | 910 | 1,769 | 979 | 258 | 6,459 | 439 | 109 | 7,007 |
| 01/02 Total | 8,761 | 5,485 | 5,582 | 3,175 | 1,133 | 24,135 | 48,003 | 29,926 | 102,064 |
| 00/01 Total | 9,314 | 4,445 | 5,775 | 5,156 | 1,130 | 25,819 | 47,734 | 27,567 | 101,120 |
| 99/00 Total | 10,629 | 4,195 | 5,590 | 4,055 | 984 | 25,453 | 48,760 | 26,972 | 101,185 |
| Source: Foreign Agricult | ural Service | e YTD-Y | ear-to-l | Date (www | w.fas.usda | .gov) | | | |

U.S. Grain Inspected for Export

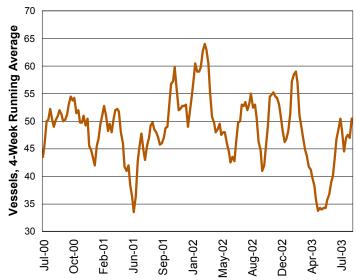


| | Pacific Region | | <u>ion</u> | Mississippi Gulf | | Texas Gulf | | Port Region Total | | <u>.1</u> | | |
|---------------|----------------|-------|------------|------------------|--------|------------|-------|-------------------|-------|-----------|-------------|-------|
| | Wheat | Corn | Soybn | Wheat | Corn | Soybn | Wheat | Corn | Soybn | Pacific | Mississippi | Texas |
| 09/11/03 | 239 | 154 | 23 | 241 | 719 | 110 | 279 | 6 | 0 | 415 | 1,070 | 285 |
| 2003 YTD | 5,940 | 3,735 | 2,775 | 4,011 | 19,945 | 10,890 | 4,377 | 542 | 56 | 12,450 | 34,846 | 4,976 |
| 2002 YTD | 6,237 | 2,978 | 1,451 | 4,099 | 27,377 | 11,354 | 4,443 | 237 | 361 | 10,667 | 42,830 | 5,040 |
| % of 2002 YTD | 95% | 125% | 191% | 98% | 73% | 96% | 99% | 229% | 16% | 117% | 81% | 99% |
| 2002 Total | 10,007 | 5,877 | 1,639 | 6,829 | 34,991 | 17,996 | 6,971 | 468 | 468 | 17,523 | 59,816 | 7,906 |

Gulf Port Region Grain Vessel Loading Past 7 Days

The U.S. Exports Approximately One-Quarter of the Grain it Produces. On average, it includes nearly 45% of U.S. grown wheat, 35% of U.S. grown soybeans, and 20% of the U.S. grown corn.

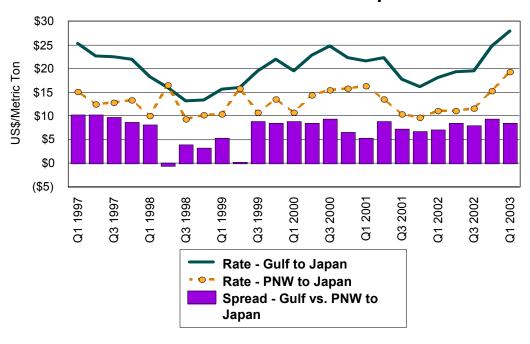
Over 60% of these U.S. export grain shipments departed through Louisiana Gulf region in 2002.



| Port Region (| Ocean Grain V | Vessels | | | |
|-------------------|----------------------|---------------|----------------|----------------------|----------------|
| | | Gulf | | Pacific Northwest | Vancouver B.C. |
| | | Loaded | Due Next | | |
| | <u>In Port</u> | <u>7-Days</u> | <u>10-Days</u> | <u>In Port</u> | <u>In Port</u> |
| 09/04/03 | 31 | 45 | 68 | 12 | 8 |
| 09/11/03 | 37 | 50 | 58 | 13 | 6 |
| 2002 Range | (1555) | (3366) | (4482) | (315) | (012) |
| 2002 Avg | 35 | 51 | 65 | 8 | 5 |
| Source: Transport | ation & Marketin | g /AMS/ USDA | | | |

| Quarterly Ocean Average Rates & Pe | 0 | | Dollars/M | etric Ton | | | |
|--|-----------------------------|-----------------------------|-------------|-----------------|-----------------------------|-----------------------------|-------------|
| | 2003 2 nd Qtr | 2002 2 nd Qtr | % Change | | 2003 2 nd Qtr | 2002 2 nd Qtr | % Change |
| Gulf to | | | | Pacific NW to | | | |
| Japan | \$31.53 | \$19.43 | 62% | Japan | \$19.33 | \$11.03 | 75% |
| Mexico | - | \$46.92 | - | | | | |
| N. Europe | \$18.98 | \$13.58 | 40% | Argentina/Brazi | il to | | |
| N. Africa | \$21.75 | \$15.84 | 37% | Med. Sea | \$24.50 | \$16.98 | 44% |
| Med. Sea | \$21.88 | \$12.62 | 73% | N. Europe | - | \$17.16 | - |
| | | | | China | \$32.50 | - | - |

Ocean Vessel Rates to Japan

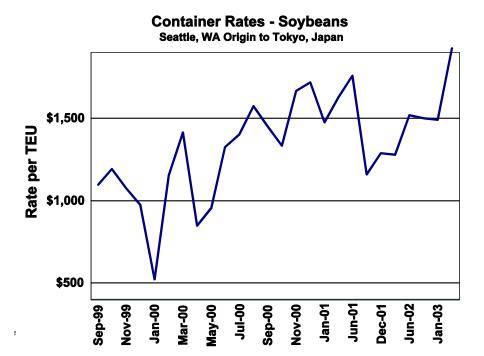


| Export Region | Import Region | Grain | Month | Volume Loaded (Tons) | Freight Rate (\$Ton) |
|---------------|---------------------|-----------|------------|----------------------------|----------------------|
| U.S. Gulf | Corinto, Nicaragua | Wheat | Sep 12/22 | 16,980 | \$34.85 |
| U.S. Gulf | Algeria | Hvy Grain | Sep 16/22 | 21,000 | \$26.50 |
| U.S. Gulf | Japan | Hvy Grain | Oct 1/10 | 54,000 | \$34.20 |
| U.S. Gulf | Japan | Hvy Grain | Sept 15/25 | 54,000 | \$34.00 |
| U.S. Gulf | Japan | Hvy Grain | Oct 7/21 | 54,000 | \$34.00 |
| Vancouver | Bin Qasim, Pakistan | Hvy Grain | Sept 20/30 | 52,000 | \$30.70 |

CONTAINER

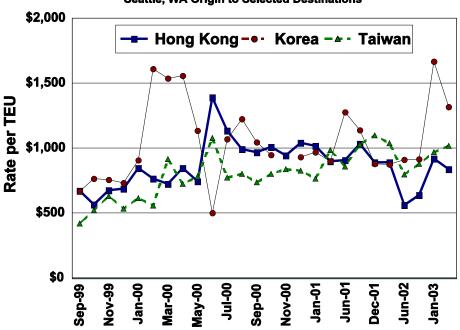
Container Ocean Freight Rates

Average Rate per TEU, Weighed by Shipping Line Market Share Source: Transportation & Marketing/AMS/USDA, Quarterly Updates



Approximately 420,000 MT of grain and oilseed exports were marketed via container in 2001. This volume increased 26% compared to 1997.

Container Rates - Feed Grain Seattle, WA Origin to Selected Destinations



CANADIAN
PORTS
ACTIVITY

| Select Canadian Port Export Inspections 1,000 Metric Tons, Week End Summary | | | | | | | |
|---|--------------------------|--------------|---------------|--|--|--|--|
| 06/19/2003 | Wheat | <u>Durum</u> | <u>Barley</u> | | | | |
| Vancouver | 105 | 5 | | | | | |
| Prince Rupert | | | | | | | |
| Prairie Direct | 5 | | | | | | |
| Thunder Bay | 18 | | | | | | |
| St. Lawrence | 4,492 | 2,329 | 290 | | | | |
| 2001/02 YTD | 10,666 | 2,963 | 961 | | | | |
| 2002/03 YTD | 4,620 | 2,334 | 290 | | | | |
| % of Last Year | 43% | 79% | 30% | | | | |
| Source: Canadian Grains Commiss | sion, Crop Year 8/1-7/31 | | | | | | |